AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

1.   (Currently Amended) A recording apparatus comprising:

   extraction means for extracting an image from a unit in which a constant number of moving images are included;

   reduction means for reducing the amount of information of the extracted image;

   encoding means for encoding the extracted image with reduced amount of information by a predetermined encoding scheme;

   association means for associating the encoded image with the unit from which the image is extracted by the extraction means; and

   recording control means for controlling recording of the encoded image associated with the unit and controlling recording of moving images onto a data recording medium,

   wherein the recording control means is configured to:

   control storing of moving images data in a first buffer and storing of encoded images data in a second buffer;

   determine an amount of ~~data of~~ moving images data stored in [[a]] the first buffer;

   control recording of [[the]] moving images data [[onto]] in a first contiguous area of the data recording medium when the amount of ~~data of~~ moving images data stored in the first buffer is no less than a first predetermined threshold, ~~such that the moving~~

~~images corresponding to a predetermined time interval are recorded in a first contiguous area of the data recording medium~~ <u>wherein the recording of the moving images data in the first contiguous area is in parallel to the storing of encoded images data in the second buffer;</u>

after ~~the recording of~~ the moving images <u>data</u> ~~corresponding to the predetermined time interval;~~ <u>recorded in the first contiguous area reaches a predetermined limit associated with the first contiguous area, stop the recording of the moving images data in the first contiguous area and</u> determine an amount of ~~data of~~ encoded images <u>data</u> stored in the <u>second</u> buffer; and

control recording of encoded images <u>data in a second contiguous area of</u> [[onto]] the data recording medium when the amount of ~~data of~~ encoded images <u>data</u> stored in the <u>second</u> buffer is no less than a second predetermined threshold, ~~such that the encoded images are recorded in a second contiguous area of the data recording medium~~ <u>wherein the recording of the encoded images data in the second contiguous area is in parallel to the storing of moving images data in the first buffer.</u>

2.   (Previously Presented) The recording apparatus according to claim 1, wherein the association means is a track associated with a track of the moving image and

associates the encoded image with the unit by arranging the encoded image in a track in a predetermined file format.

3.　(Previously Presented) The recording apparatus according to claim 1, wherein the association means associates the encoded image with the unit by associating a range of time for playback of the unit of the moving image with the encoded image.

4.　(Cancelled)

5.　(Previously Presented) The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a static image.

6.　(Previously Presented) The recording apparatus according to claim 1, wherein the encoding means encodes the image by a compression and encoding scheme for a moving image such that decoding is possible only with the image.

7.　(Previously Presented) The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by thinning out pixels of the image.

8.　(Previously Presented) The recording apparatus according to claim 1, wherein the reduction means reduces the amount of information of the image by removing a high-frequency component of the image.

9.   (Currently Amended) A recording method comprising:

an extraction step of extracting an image from a unit in which a constant
number of moving images are included;

a reduction step of reducing the amount of information of the extracted
image;

an encoding step of encoding the extracted image with reduced amount of
information by a predetermined encoding scheme;

an association step of associating the encoded image with the unit from
which the image is extracted in the extraction step; and

a recording control step of controlling recording of the encoded image
associated with the unit and controlling recording of moving images
onto a data recording medium,

wherein the recording control step comprises:

controlling storing of moving images data in a first buffer and
storing of encoded images data in a second buffer

determining an amount of ~~data of~~ moving images data stored
in [[a]] the first buffer;

controlling recording of [[the]] moving images data [[onto]] in
a first contiguous area of the data recording medium
when the amount of ~~data of~~ moving images data
stored in the first buffer is no less than a first
predetermined threshold, ~~such that the moving
images corresponding to a predetermined time
interval are recorded in a first contiguous area of the
data recording medium~~ wherein the recording of the
moving images data in the first contiguous area is in

-5-

parallel to the storing of encoded images data in the

second buffer;

after ~~the recording of~~ the moving images data ~~corresponding to the predetermined time interval;~~ recorded in the

first contiguous area reaches a predetermined limit

associated with the first contiguous area, stopping the

recording of the moving images data in the first

contiguous area and determining an amount of ~~data of~~ encoded images data stored in the second buffer;

and

controlling recording of the encoded images data in a

second contiguous area of [[onto]] the data recording

medium when the amount of ~~data of~~ encoded images

data stored in the second buffer is no less than a

second predetermined threshold, ~~such that the encoded images are recorded in a second contiguous area of the data recording medium~~ wherein the

recording of the encoded images data in the second

contiguous area is in parallel to the storing of moving

images data in the first buffer.

10.   (Currently Amended) A recording medium storing a program causing a computer

to perform recording processing comprising:

an extraction step of extracting an image from a unit in which a constant

number of moving images are included;

a reduction step of reducing the amount of information of the extracted

image;

an encoding step of encoding the extracted image with reduced amount of

information by a predetermined encoding scheme;

an association step of associating the encoded image with the unit from

which the image is extracted in the extraction step; and

a recording control step of controlling recording of the encoded image

associated with the unit and controlling recording of moving images

onto a data recording medium,

wherein the recording control step comprises:

controlling storing of moving images data in a first buffer and

storing of encoded images data in a second buffer

determining an amount of ~~data of~~ moving images data stored

in [[a]] the first buffer;

controlling recording of [[the]] moving images data [[onto]] in

a first contiguous area of the data recording medium

when the amount of ~~data of~~ moving images data

stored in the first buffer is no less than a first

predetermined threshold, ~~such that the moving~~

~~images corresponding to a predetermined time~~

~~interval are recorded in a first contiguous area of the~~

~~data recording medium~~ wherein the recording of the

moving images data in the first contiguous area is in

parallel to the storing of encoded images data in the

second buffer;

after ~~the recording of~~ the moving images data ~~corresponding to the predetermined time interval;~~ recorded in the first contiguous area reaches a predetermined limit associated with the first contiguous area, stopping the recording of the moving images data in the first contiguous area and determining an amount of ~~data of~~ encoded images data stored in the second buffer; and

controlling recording of the encoded images data in a second contiguous area of [[onto]] the data recording medium when the amount of ~~data of~~ encoded images data stored in the second buffer is no less than a second predetermined threshold, ~~such that the encoded images are recorded in a second contiguous area of the data recording medium~~ wherein the recording of the encoded images data in the second contiguous area is in parallel to the storing of moving images data in the first buffer.

11. (Cancelled)

12. (Currently Amended) A playback apparatus comprising:

reading control means for controlling reading an image from a data recording medium recording moving images and the image, the image being extracted from a unit in which a constant number of moving images are included, the amount of information of the

image being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with the unit, [[the]] moving images <u>data</u> being <u>stored in a first buffer and encoded images data being stored in a second buffer, the moving images data being</u> recorded onto the data recording medium when an amount of ~~data of~~ moving images <u>data</u> stored in [[a]] <u>the first</u> buffer is determined to be no less than a first predetermined threshold such that the moving images <u>data</u> ~~corresponding to a predetermined time interval~~ are recorded in a first contiguous area of the data recording medium <u>in parallel to the storing of encoded images data in the second buffer</u>, the encoded ~~image~~ <u>images data</u> being recorded <u>in a second contiguous area of</u> [[onto]] the data recording medium <u>in parallel to the storing of moving images data in the first buffer and</u> after ~~the recording of~~ the moving images <u>data</u> ~~corresponding to the predetermined time interval,~~ <u>recorded in the first contiguous area reaches a predetermined limit associated with the first contiguous area and the recording of the moving images data in the first contiguous area stops,</u> and when an amount of ~~data of~~ encoded images <u>data</u> stored in the <u>second</u> buffer is determined to be no less than a second predetermined threshold ~~such that the encoded image is recorded in a second contiguous area of the data recording medium~~, and the reading being based on an instruction from a user and a relationship with the unit;

decoding means for decoding the image; and

display control means for controlling display of the decoded image.

13.   (Previously Presented) The playback apparatus according to claim 12, wherein the reading control means controls reading the image from the data recording medium so as to read only the image if the user directs a fast-forward operation or a rewind operation.

14.   (Previously Presented) The playback apparatus according to claim 12, wherein the decoding means decodes the image encoded by a compression and encoding scheme for a static image.

15.   (Previously Presented) The playback apparatus according to claim 12, wherein the decoding means decodes the image encoded by a compression and encoding scheme for the moving image such that decoding is possible only with the image.

16.   (Currently Amended) A playback method comprising:

a reading control step of controlling reading an image from a data recording medium recording moving images and the image, the image being extracted from a unit in which a constant number of moving images are included, the amount of information of the image being reduced, the image being encoded by a predetermined encoding scheme, the image being associated with the unit, [[the]] moving images <u>data</u> being <u>stored in a first buffer and encoded images data being stored in a second buffer, the moving images data being</u> recorded onto the data recording medium when an amount of <s>data of</s> moving images <u>data</u> stored in [[a]] <u>the first</u> buffer is determined to be no less than a first predetermined

threshold such that the moving images data ~~corresponding to a predetermined time interval~~ are recorded in a first contiguous area of the data recording medium in parallel to the storing of encoded images data in the second buffer, the encoded ~~image~~ images data being recorded in a second contiguous area of [[onto]] the data recording medium in parallel to the storing of moving images data in the first buffer and after ~~the recording of~~ the moving images data ~~corresponding to the predetermined time interval,~~ recorded in the first contiguous area reaches a predetermined limit associated with the first contiguous area and the recording of the moving images data in the first contiguous area stops, and when an amount of ~~data of~~ encoded images data stored in the second buffer is determined to be no less than a second predetermined threshold ~~such that the encoded image is recorded in a second contiguous area of the data recording medium,~~ and the reading being based on an instruction from a user and a relationship with the unit;

a decoding step of decoding the image; and

a display control step of controlling display of the decoded image.

17. (Currently Amended) A recording medium storing a program causing a computer to perform playback processing comprising:

a reading control step of controlling reading an image from a data recording medium recording moving images and the image, the image being extracted from a unit in which a constant number of moving images are included, the amount of information of the image being reduced, the image being encoded by a

predetermined encoding scheme, the image being associated with
the unit, [[the]] moving images <u>data</u> being <u>stored in a first buffer and
encoded images data being stored in a second buffer, the moving
images data being</u> recorded onto the data recording medium when
an amount of <s>data of</s> moving images <u>data</u> stored in [[a]] <u>the first</u>
buffer is determined to be no less than a first predetermined
threshold such that the moving images <u>data</u> <s>corresponding to a
predetermined time interval</s> are recorded in a first contiguous area
of the data recording medium <u>in parallel to the storing of encoded
images data in the second buffer</u>, the encoded <s>image</s> <u>images data</u>
being recorded <u>in a second contiguous area of</u> [[onto]] the data
recording medium <u>in parallel to the storing of moving images data
in the first buffer and</u> after <s>the recording of</s> the moving images <u>data</u>
<s>corresponding to the predetermined time interval,</s> <u>recorded in the
first contiguous area reaches a predetermined limit associated with
the first contiguous area and the recording of the moving images
data in the first contiguous area stops,</u> and when an amount of <s>data
of</s> encoded images <u>data</u> stored in the <u>second</u> buffer is determined
to be no less than a second predetermined threshold <s>such that the
encoded image is recorded in a second contiguous area of the data
recording medium</s>, and the reading being based on an instruction
from a user and a relationship with the unit;

a decoding step of decoding the image; and

a display control step of controlling display of the decoded image.

18.   (Cancelled)